IN THE CLAIMS

1. (currently amended) A method comprising the steps of:

generating two-dimensional electronically modeled aircraft engine harnesses from a three-dimensional harness definition that includes a plurality of connector fittings coupled together with wire cables, wherein said three-dimensional harness definition defines a harness, said generating the two-dimensional electronically modeled aircraft engine harnesses comprises:

defining the three-dimensional harness definition such that each of the plurality of connector fittings includes a plurality of connector fitting ports for orienting the connector fitting with respect to each other of the plurality of connector fittings in a cartesian coordinate system, wherein each of the plurality of connector fittings includes a connector port, a direction port, a free port, and a key port,;

determining design parameters of the harness;

generating a two-dimensional stick form model of the plurality of connector fittings from the three-dimensional harness definition such that the appearance and orientation of each connector fitting image produced is three-dimensional with respect to each other of the plurality of connector fittings;

creating, by a processor, a first line that extends from a first one of the plurality of connector fittings to a second one of the plurality of connector fittings; and

producing a second line that extends from said first line to a third one of said plurality of connector fittings.

2. (original) A method in accordance with Claim 1 further comprising the steps of displaying the design parameters in a tabular output.

3. (original) A method in accordance with Claim 2 wherein said step of determining design parameters further comprises the step of determining at least one of a branch angle, a base angle, and a true angle for the harness.

4. (original) A method in accordance with Claim 2 wherein said step of determining design parameters further comprises the step of determining at least one of a wire length, a fitting keyway, and a master keyway for the harness.

5. (currently amended) A method in accordance with Claim 2 wherein said step of determining design parameters further comprises the steps of:

determining a length between adjacent harness branches; and

determining locations of diametrical changes of the harness.

6. (currently amended) A modeling system for producing a two-dimensional electronic model of an aircraft engine harness, said system configured to:

generate a three-dimensional harness definition that includes a plurality of connector fittings coupled together with wire cables, wherein each of the plurality of connector fittings includes a connector port, a direction port, a free port, and a key port such that each of the plurality of connector fittings are oriented with respect to one another in a cartesian coordinate system, wherein said three-dimensional harness definition defines a harness;

generate a two-dimensional electronic drawing of each of the plurality of connector fittings from the three-dimensional harness definition such that the appearance and orientation of each connector fitting image produced is three-dimensional with respect to each other of the plurality of connector fittings;

generate a first line that extends from a connector port of a first one of the plurality of connector fittings to a connector port of a second one of the plurality of connector fittings; and

generate a second line that extends from said first line to a connector port of a third one of said plurality of connector fittings to produce the two-dimensional electronic model.

7. (currently amended) A modeling system in accordance with Claim 6 wherein ~~to generate the two-dimensional electronic model,~~ said system further configured to determine at least one of a branch angle, a wire length, and a base angle of the harness.

8. (currently amended) A modeling system in accordance with Claim 6 ~~to generate the two-dimensional electronic model,~~ said system further configured to determine at least one of a harness true angle, a fitting keyway, and a master keyway of the harness.

9. (original) A modeling system in accordance with Claim 6 wherein said system further configured to determine a length between adjacent harness branches.

10. (currently amended) A modeling system in accordance with Claim 6 wherein said system further configured to determine locations of diametrical changes of the harness branches.

11. (previously presented) A modeling system in accordance with Claim 7 wherein said system further configured to define each of the connector fittings of the harness.

12. (currently amended) A system for generating a two-dimensional electronic model of an aircraft engine harness from a three-dimensional aircraft engine harness definition that includes a plurality of connector fittings coupled together with wire cables, said system comprising a processor programmed to:

define said three-dimensional aircraft engine harness definition, wherein each of the plurality of connector fittings includes a plurality of connector fitting ports for orienting the connector fitting with respect to each other of the plurality of connector fittings in a cartesian coordinate system, wherein said three-dimensional aircraft engine harness definition defines a harness wherein each of the plurality of connector fittings includes a connector port, a direction port, a free port, and a key port;

determine aircraft engine harness design parameters from the three-dimensional aircraft engine harness definition; and

generate said two-dimensional electronic model of said aircraft engine harness in stick form using said three-dimensional aircraft engine harness definition and said aircraft engine harness design parameters, such that the appearance and orientation of each connector fitting image produced is three-dimensional with respect to each other of the plurality of connector fittings.

13. (original) A system in accordance with Claim 12 wherein said processor further programmed to determine parameters including at least one of a branch angle, a base angle, and a true angle.

14. (original) A system in accordance with Claim 12 wherein said processor further programmed to determine parameters including at least one of a wire length, a fitting keyway, and a master keyway.

15. (previously presented) A system in accordance with Claim 12 wherein said processor further programmed to determine design parameters of the harness to display the design parameters in a tabular format.

16. (previously presented) A system in accordance with Claim 12 wherein said processor further programmed to define each of the connector fittings.

17. (currently amended) A system in accordance with Claim 12 wherein said processor further programmed to determine a length between adjacent aircraft engine harness branches.

18. (currently amended) A system in accordance with Claim 12 wherein said processor further programmed to determine locations of diametrical changes of the harness branches.